

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/568,471
Source: 1 FWO
Date Processed by STIC: 2/23/06

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/568,471

CRF Edit Date: 2/24/06
Edited by: m

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

___ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

✓ Inserted mandatory headings/numeric identifiers, specifically:

<2207 in sequence 273

___ Moved responses to same line as heading/numeric identifier, specifically:

___ Other:

Revised 09/09/2003

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RAW SEQUENCE LISTING                                DATE: 02/24/2006
PATENT APPLICATION:  US/10/568,471                  TIME: 16:50:48

Input Set : A:\PTO.AMC.txt
Output Set : N:\CRF4\02242006\J568471.raw

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/568,471

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Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\02242006\J568471.raw

| | | | | | | | |
|----|-------------|-------------|-------------|-------------|-------------|------------|------|
| 44 | atattatttgg | ttcctgagga | agaccacata | ctcataattc | cagtagttcg | tggaaaggac | 960 |
| 45 | aacaatggaa | atctgattgg | atctgatgaa | tatgaggttt | caatcagtta | tgctgtcaca | 1020 |
| 46 | actgggaatt | ccacagcaca | tgcccagcaa | aatctggact | tcattgatct | tcagccaaac | 1080 |
| 47 | acaactggtg | tttttccacc | ttttattcat | gaatctcact | tgaaatttca | aatagttgat | 1140 |
| 48 | gacaccatac | cggagattgc | tgaatcgttt | cacattatgt | tactaaaaga | taccttacag | 1200 |
| 49 | ggagatgctg | tgctaataag | cccttctggt | gtacaagtca | ccattaagcc | aaatgataaa | 1260 |
| 50 | ccttatggag | tcctttcatt | caacagtgtt | ttgtttgaaa | ggacagttat | aattgatgaa | 1320 |
| 51 | gatagaatat | caagatatga | agaaatcaca | gtgggttagaa | atggagggaac | ccatgggaat | 1380 |
| 52 | gtctctgcga | attgggtggt | gacaccgaac | agcactgatc | cctcaccagt | aacagcagat | 1440 |
| 53 | atcagaccga | gctctggagt | tcttcatttt | gcacaagggc | agatgttggc | aacaattcct | 1500 |
| 54 | cttactgggg | gtgatgatga | tcttccagaa | gaggcagaag | cttatctact | tcaaattctg | 1560 |
| 55 | cctcatatac | tacgaggagg | tgcaagaagt | agcgagccag | cggagctttt | gttctacatt | 1620 |
| 56 | caggatagtg | atgatgtcta | tgccctaata | acattttttc | ctatggaaaa | ccagaagatt | 1680 |
| 57 | gaaagcagcc | caggtggacg | atacttatcc | ttgagtttta | caagactagg | agggactaaa | 1740 |
| 58 | ggagatgtga | ggttgcttta | ttctgtactt | tacattcctg | ctggagctgt | ggacccttg | 1800 |
| 59 | caagcaaaag | aaggcatctt | aaatatatca | aggagaaatg | acctcatttt | tccagagcaa | 1860 |
| 60 | aaaactcaag | tcactacaaa | attaccaata | agaaatgatg | cattccttca | aaatggagct | 1920 |
| 61 | cactttctag | tacagttgga | aactgtggag | ttgttaaaca | taattcctct | aatcccaccc | 1980 |
| 62 | ataagcccta | gatttgggga | aacttgcaat | atttctttac | tggttactcc | agccattgca | 2040 |
| 63 | aatggagaaa | ttggctttct | cagcaatctt | ccaattattt | tgcatgaacc | agaagatttt | 2100 |
| 64 | gctgctgaag | tggtatacat | tcccttacat | cgggatggaa | ctgatggcca | ggctactgtc | 2160 |
| 65 | tactggagtt | tgaagccctc | tggttttaat | tcaaaagcag | tgaccccgga | tgatataggc | 2220 |
| 66 | ccctttaatg | gctctgtttt | gtttttatct | gggcaaagtg | acacaacaat | caacattact | 2280 |
| 67 | atcaaagggtg | atgacatacc | ggaaatgaat | gaaactgtaa | cactttctct | agactggggt | 2340 |
| 68 | aacgtggaaa | accaagtgtc | gaaatctgga | tatactagcc | gtgacctaat | tattttggaa | 2400 |
| 69 | aatgatgacc | ctgggggagt | ttttgaattt | tctcctgctt | ccagaggacc | ctatgttata | 2460 |
| 70 | aaagaaggag | aatctgtaga | gctccacatc | atccgatcaa | gggggtccct | tgtttagcag | 2520 |
| 71 | tttctacact | accgagtaga | gccaagagat | agcaatgaat | tctatggaaa | cacgggagta | 2580 |
| 72 | ctagaattta | aacctggaga | aaggagagata | gtgatcacct | tgctagcaag | attggatggg | 2640 |
| 73 | ataccagagt | tggatgaaca | ctactgggtg | gtcctcagca | gccacggaga | acgggaaagc | 2700 |
| 74 | aagttgggaa | gtgccaccat | tgtcaatata | acgattctga | aaaatgatga | tcctcatggc | 2760 |
| 75 | attatagaat | ttgtttctga | tggtctaatt | gtgatgataa | atgaaagcaa | aggagatgct | 2820 |
| 76 | atctatagtg | ctgtttatga | tgtagtaaga | aatcgaggca | actttggtga | tgtagtgta | 2880 |
| 77 | tcatgggtgg | ttagtccaga | ctttacacaa | gatgtatttc | ctgtacaagg | gactgttgtc | 2940 |
| 78 | tttggagatc | aggaattttc | aaaaaatatc | accatttact | cccttcagaa | tgagattcca | 3000 |
| 79 | gaagaaatgg | aagaattttac | cgttatccta | ctgaatggca | ctggaggagc | taaagtggga | 3060 |
| 80 | aatagaacaa | ctgcaactct | gaggattaga | agaaatgatg | acccatttta | ttttgcagaa | 3120 |
| 81 | cctcgtgtag | tgagggttca | agaaggggag | actgccaaact | ttacagttct | cagaaatgga | 3180 |
| 82 | tctgttgatg | tgacttgcac | ggtccagtat | gctaccaagg | atgggaaggc | tactgcaaga | 3240 |
| 83 | gagagagatt | tcattcctgt | tgaaaaagga | gaaacgctca | tttttgaggt | tggaagtaga | 3300 |
| 84 | cagcagagca | tatccatatt | tgtaaatgaa | gatggatcca | cggaaacaga | tgagcccttt | 3360 |
| 85 | tatataatcc | tcttgaattc | accagggtgat | ccagtagtat | atcaatatgg | agtagctaca | 3420 |
| 86 | gtaataattg | aagctaattga | tgacccaaat | ggcatttttt | ctctggagcc | catagacaaa | 3480 |
| 87 | gcagtggaa | aaggaaagac | taatgcattt | tggattttga | ggcaccgagg | atactttggt | 3540 |
| 88 | agtgtttctg | tatcttgcca | gctctttcag | aatgattctg | ctttgcagcc | tgggcaggag | 3600 |
| 89 | ttctatgaaa | cttcaggaa | tgtaaacctc | atggatggag | aagaagcaaa | accaatcatt | 3660 |
| 90 | ctccatgctt | ttccagataa | aattcctgaa | ttcaatgaat | tttatttcct | aaaacttgta | 3720 |
| 91 | aacatttcag | gtggatcccc | aggtcctggg | ggccagctag | cagaaaccaa | cctccaggtg | 3780 |
| 92 | acagtaattg | ctccattcaa | tgatgatccc | tttgagattt | ttatcttgga | tccagagtgt | 3840 |

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| | | | | | | | |
|-----|------------|------------|------------|-------------|-------------|-------------|------|
| 93 | ttagagagag | aagtggcaga | agatgtcctg | tctgaagatg | atatgtctta | tattaccaac | 3900 |
| 94 | ttcaccattt | tgaggcagca | gggtgtgttt | ggtgatgtac | aactgggctg | ggaaatactg | 3960 |
| 95 | tccagtgagt | tcctgtctgg | tctgccacca | atgatagatt | ttttactggg | tggaaatttc | 4020 |
| 96 | cccaccaccg | tgcatttaca | acagcacatg | cggggtcacc | acagtggaac | ggatgctttg | 4080 |
| 97 | tactttaccg | gactagaagg | tgcatttggg | actggttaatt | caaaatacca | tcctttcagg | 4140 |
| 98 | aataatacaa | ttgccaaact | tacattttca | gcttgggtaa | tgcccaatgc | caatacgaat | 4200 |
| 99 | ggattcatta | tagcgaagga | tgacggtaat | ggaagcatct | actacggggg | aaaaatacaa | 4260 |
| 100 | acaaacgaat | cccatgtgac | actttccctt | cattataaaa | ccttgggttc | caatgctaca | 4320 |
| 101 | tacattgcca | agacaacagt | catgaaatat | ttagaagaaa | gtgtttggct | tcatctacta | 4380 |
| 102 | attatcctgg | aggatgggat | aatcgaattc | tacctggatg | gaaatgcaat | gcccagggga | 4440 |
| 103 | atcaagagtc | tgaaaggaga | agccattact | gacggctctg | ggatactgag | aattggagca | 4500 |
| 104 | gggataaatg | gcaatgacag | atttacaggg | ctgatgcagg | atgtgaggtc | ctatgagcgg | 4560 |
| 105 | aaactgacgc | ttgaagaaat | ttatgaactt | catgccatgc | ccgcaaaaag | tgatttacac | 4620 |
| 106 | ccaatttctg | gatatctgga | gttcagacag | ggagaaacta | acaaatcatt | cattattttct | 4680 |
| 107 | gcaagagatg | acaatgacga | ggaaggagaa | gaattattca | ttcttaaact | agtttctgta | 4740 |
| 108 | tatggaggag | ctcgtatttc | ggaagaaaat | actactgcaa | gattaacaat | acaaaaaagt | 4800 |
| 109 | gacaatgcaa | atggcttggt | tggtttcaca | ggagcttgta | taccagagat | tgacagggag | 4860 |
| 110 | ggatcaacca | tttcttggtg | ggttgagaga | accagaggag | ctctggatta | tgtgcatggt | 4920 |
| 111 | ttttacacca | tttcacagat | tgaaactgat | ggcattaatt | accttggtga | tgactttgct | 4980 |
| 112 | aatgccagtg | gaactattac | attccttctt | tggcagagat | cagagggttc | gaatatatat | 5040 |
| 113 | gttcttgatg | atgatattcc | tgaacttaat | gagtatttcc | gtgtgacatt | ggtttctgca | 5100 |
| 114 | attcctggag | atgggaagct | aggctcaact | cctaccagtg | gtgcaagcat | agatcctgaa | 5160 |
| 115 | aaggaaacga | ctgatatcac | catcaaagct | agtgatcatc | catatggctt | gctgcagttc | 5220 |
| 116 | tccacagggc | tgctcctca | gcctaaggac | gcaatgaccc | tgcttgcaag | cagcgttcca | 5280 |
| 117 | catatcactg | tggaggagga | agatggagaa | atcagggttat | tggtcatccg | tgacacggga | 5340 |
| 118 | cttctgggaa | gggtgactgc | ggaatttaga | acagtgtcct | tgacagcatt | cagtcctgag | 5400 |
| 119 | gattaccaga | atgttgctgg | cacattagaa | tttcaaccag | gagaaagata | taaatacatt | 5460 |
| 120 | ttcataaaca | tcactgataa | ttctattcct | gaactggaaa | aatcttttaa | agttgagttg | 5520 |
| 121 | ttaaacttgg | aaggaggagt | agctgaactc | tttaggggtg | atggaagtgg | tagtggtgat | 5580 |
| 122 | ggggacatgg | aattcttctt | tccaactatt | cacaaacgtg | ccagtctagg | agtggcttcc | 5640 |
| 123 | caaattctag | tgacaattgc | agcctctgac | cacgctcatg | gcgtatttga | atttagccct | 5700 |
| 124 | gagtcaactc | ttgtcagtgg | aactgaacca | gaagatgggt | atagcactgt | tacattaaat | 5760 |
| 125 | gttataagac | atcatggaac | tctgtctcca | gtgactttgc | attggaacat | agactctgat | 5820 |
| 126 | cctgatggtg | atctcgctt | cacctctggc | aacatcacat | ttgagattgg | gcagacgagc | 5880 |
| 127 | gccaatatca | ctgtggagat | attgcctgac | gaagacccag | aactggataa | ggcattctct | 5940 |
| 128 | gtgtcagtc | tcagtgtttc | cagtggttct | ttgggagctc | atattaatgc | cacgttaaca | 6000 |
| 129 | gttttggtta | gtgatgatcc | atatgggata | ttcatttttt | ctgagaaaaa | cagacctgtt | 6060 |
| 130 | aaagttgagg | aagcaacca | gaacatcaca | ctatcaataa | taaggttgaa | aggcctcatg | 6120 |
| 131 | ggaaaagtcc | ttgtctcata | tgcaacacta | gatgatatgg | aaaaaccacc | ttattttcca | 6180 |
| 132 | cctaatttag | cgagagcaac | tcaaggaaga | gactatatac | cagcttctgg | atttgctctt | 6240 |
| 133 | tttgagctca | atcagagtga | ggcaacaata | gctatttcaa | ttttggatga | tgatgagcca | 6300 |
| 134 | gaaagggtcc | aatctgtctt | tatcgaacta | ctcaactcta | ctttagtagc | gaaagtacag | 6360 |
| 135 | agtcgttcaa | ttccaaattc | tccacgtctt | gggcctaagg | tagaaactat | tgcgcaacta | 6420 |
| 136 | attatcattg | ccaatgatga | tgcatttgga | actcttcagc | tctcagcacc | aattgtccga | 6480 |
| 137 | gtggcagaaa | atcatgttgg | accattatc | aatgtgacta | gaacaggagg | agcatttgca | 6540 |
| 138 | gatgtctctg | tgaagtttaa | agctgtgcca | ataacagcaa | tagctgggtga | agattatagt | 6600 |
| 139 | atagcttcat | cagatgtggg | cttgctagaa | ggggaaacca | gtaaaagccg | gccaatatat | 6660 |
| 140 | gtcattaatg | atatctatcc | tgaactggaa | gaatcttttc | ttgtgcaact | gatgaatgaa | 6720 |
| 141 | acaacaggag | gagccagact | aggggcttta | acagaggcag | tcattattat | tgaggcctct | 6780 |

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| | | | | | | | |
|-----|-------------|-------------|-------------|------------|-------------|------------|------|
| 142 | gatgaccct | atggattatt | tggttttcag | attactaaac | ttattgtaga | ggaacctgag | 6840 |
| 143 | tttaactcag | tgaaggtaaa | cctgccaaata | attcgaaatt | ctgggacact | cggcaatggt | 6900 |
| 144 | accgttcagt | gggttgccac | cattaatgga | cagcttgcta | ctggcgacct | gcgagttgtc | 6960 |
| 145 | tcaggtaatg | tgacctttgc | ccctggggaa | accattcaaa | ccttgttgtt | agaggctctg | 7020 |
| 146 | gctgacgacg | ttccggagat | tgaagaggtt | atccaagtgc | aactaactga | tgccctcgtg | 7080 |
| 147 | ggaggtacta | ttgggttaga | tcgaattgca | aatattatta | ttcctgccaa | tgatgatcct | 7140 |
| 148 | tatgggtacag | tagcctttgc | tcagatgggt | tatcgtgttc | aagagcctct | ggaaagaagt | 7200 |
| 149 | tcctgtgcta | atataactgt | caggcgaaagc | ggagggcact | ttggtcggct | gttgtgtgtc | 7260 |
| 150 | tacagtactt | ccgacattga | tgtagtggct | ctggcaatgg | aggaagggtca | agatttactg | 7320 |
| 151 | tcctactatg | aatctccaat | tcaaggggtg | cctgaccac | tttgagagaac | ttggatgaat | 7380 |
| 152 | gtctctgccg | tgggggagcc | cctgtatacc | tgtgccactt | tgtgccttaa | ggaacaagct | 7440 |
| 153 | tgctcagcgt | tttcattttt | cagtgtctct | gagggtcccc | agtgtttctg | gatgacatca | 7500 |
| 154 | tgatcagcc | cagctgtcaa | caattcagac | ttttggacct | acaggaaaaa | catgaccagg | 7560 |
| 155 | gtagcatctc | tttttagtgg | tcaggctgtg | gctgggagt | actatgagcc | tgtgacaagg | 7620 |
| 156 | caatgggcca | taatgcagga | aggtgatgaa | ttcgcaaatc | tcacagtgtc | tattcttctt | 7680 |
| 157 | gatgatttcc | cagagatgga | tgagagtttt | ctaatttctc | tccttgaagt | tcacctcatg | 7740 |
| 158 | aacatttcag | ccagtttgaa | aaatcagcca | accataggac | agccaaatat | ttctacagtt | 7800 |
| 159 | gtcatagcac | taaaagggtga | tgcccttgga | gtgtttgtga | tctacaatat | tagtcccaat | 7860 |
| 160 | acttccgaag | atggcttatt | tggtgaagtt | caggagcagc | cccaaaccct | ggtggagctg | 7920 |
| 161 | atgatacaca | ggacaggggg | cagcttaggt | caagtggcag | tcgaatggcg | tgtgttggt | 7980 |
| 162 | ggaacagcta | ctgaaggttt | agattttata | ggtgctggag | agattttgac | ctttgctgaa | 8040 |
| 163 | ggtgaaacca | aaaagacagt | cattttaacc | atcttggatg | actctgaacc | agaggatgac | 8100 |
| 164 | gaaagtatca | tagttagttt | ggtgtacact | gaaggtggaa | gtagaatttt | gccaagctcc | 8160 |
| 165 | gacactgtta | gagtgaacat | tttggccaat | gacaatgtgg | caggaattgt | tagctttcag | 8220 |
| 166 | acagcttcca | gatctgtcat | aggtcatgaa | ggagaaattt | tacaattcca | tgtgataaga | 8280 |
| 167 | actttccctg | gtcagggaaa | tgttactggt | aactggaaaa | ttattgggca | aaatctagaa | 8340 |
| 168 | ctcaattttg | ctaactttga | cggacaactt | ttctttcctg | aggggtcggt | gaatacaaca | 8400 |
| 169 | ttgtttgtgc | atttgttgga | tgacaacatt | cctgaggaga | aagaagtata | ccaagtcatt | 8460 |
| 170 | ctgtatgatg | tcaggacaca | aggagtcca | ccagccggaa | tcgccctgct | tgatgctcaa | 8520 |
| 171 | ggatatgcag | ctgtcctcac | agtagaagcc | agtgatgaac | cacatggagt | tttaaatttt | 8580 |
| 172 | gctctttcat | caagatttgt | gttactacaa | gaggctaaca | taacaattca | gcttttcac | 8640 |
| 173 | aacagagaat | ttggatctct | aggagctatc | aatgtccat | ataccacggt | tcctggaatg | 8700 |
| 174 | ctgagtctga | agaaccaaac | agtaggaaac | ctagcagagc | cagaagtga | tttgtccct | 8760 |
| 175 | atcattggct | ttctgatttt | agaagaagg | gaaacagcag | cagccatcaa | cattaccatt | 8820 |
| 176 | cttgaggatg | atgtaccaga | gctagaagaa | tatttctctg | tgaatttaac | ttacgtggga | 8880 |
| 177 | cttaccatgg | ctgcttcaac | ttcatttctt | cccagactag | attcagaagg | tttgactgca | 8940 |
| 178 | caagttatta | ttgatgccaa | tgatggggcc | cgagggtgta | ttgaatggca | acaaagcagg | 9000 |
| 179 | tttgaagtaa | atgaaaccca | tggaagttaa | acattggtag | cccagaggag | cagagaacct | 9060 |
| 180 | cttgccatg | tttcttatt | tgtgtatgct | cagaatttgg | aagcacaagt | ggggctggat | 9120 |
| 181 | tatatcttca | ccccaatgat | tcttcatttt | gctgatggag | aaaggtataa | aaatgtcaat | 9180 |
| 182 | atcatgatct | ttgatgatga | cattccagaa | ggagatgaaa | aatttcagct | gattttaaca | 9240 |
| 183 | aatccttctc | ctggactaga | gctagggaaa | aatacaatag | ccttaattat | tgtccttgct | 9300 |
| 184 | aatgatgacg | gccctggagt | tctatcattt | aacaacagt | agcacttttt | cctaagagag | 9360 |
| 185 | ccaacagctc | tctacgtcca | ggagagtgtt | gcagtattgt | acattgttcg | ggaacctgca | 9420 |
| 186 | caaggattgt | ttggaacagt | gacagttcag | ttcattgtga | cagaagtga | ttcctcaaat | 9480 |
| 187 | gaatctaaag | atctgactcc | ttccaaaggc | tatattgttt | tagaagaagg | tgttcgattc | 9540 |
| 188 | aaggccctac | aaatatctgc | catattagac | acggaaccag | aaatggatga | gtattttgtt | 9600 |
| 189 | tgacacttgt | ttaatccaac | tggaggtgct | agactagggg | tgcatgttca | aaccttgata | 9660 |
| 190 | acagttttgc | aaaaccaggc | ccctttgggg | ctattcagta | tctctgcagt | tgaaaataga | 9720 |

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| | | | | | | | |
|-----|-------------|-------------|------------|-------------|-------------|-------------|-------|
| 191 | gccacctcca | tagacatcga | agaagccaat | aggaccgtgt | atttaaagt | atctcgaact | 9780 |
| 192 | aatgacattg | atttggtgt | gagtgtgcag | tgggagacag | tatctgaaac | agcctttggc | 9840 |
| 193 | atgaggggaa | tggatgttgt | gttttccgta | tttcaaagt | ttttggatga | atcagcttct | 9900 |
| 194 | ggctggtgtt | tctttacttt | ggaaaattta | atatatggta | taatgttaag | aaaatcatct | 9960 |
| 195 | gttactgttt | accgatggca | ggggattttt | attccagttg | aggattttaa | tatagaaaat | 10020 |
| 196 | cctaaaaact | gtgagccctt | taatatgggt | ttttctccct | actttgtgat | tactcatgaa | 10080 |
| 197 | gaaagaaatg | aagaaaagcc | ttctcttaac | agtgtgttta | cattcacatc | tggattttaa | 10140 |
| 198 | ttattcctgg | tacaaacaat | cattattctg | gaaagtcttc | aagtaagata | ttttacttca | 10200 |
| 199 | gacagccaag | attattttaat | cattgcaagt | caaagagatg | attccgaatt | aactcaggtc | 10260 |
| 200 | ttcaggtgga | atggaggaag | cttcgtgttg | catcaaaaac | tccctgtccg | agggtgtgctg | 10320 |
| 201 | accgtggcct | tgttcaacaa | gggaggctct | gtgttcttag | ccatttccca | ggctaagcc | 10380 |
| 202 | aggctaaact | cccttttatt | cgatgggtct | ggcagtggtg | ttattaaact | tcaagagggtg | 10440 |
| 203 | ctgtgcagt | ggacaacaga | agttgaggct | ttgtcttcag | ccaatgatat | ttaccttaata | 10500 |
| 204 | ttgtccgaaa | atgtctttct | aggagatcag | aattcaattg | atattttcat | ctgggagatg | 10560 |
| 205 | ggacagtctt | ccttcaggta | ttttcagctc | gtagattttg | ctgctgttaa | cagaatccac | 10620 |
| 206 | tccttcacac | cagcctcagg | aatagccac | atacttctta | ttgggccaag | atatgtctac | 10680 |
| 207 | tcttttactg | ctggaaattc | ggagcgtaat | caattctctt | ttgttctgga | agtaccttct | 10740 |
| 208 | gcttatgatg | tggtttctgt | tacagtaaag | tcccttaatt | caagcaagaa | tttaatatgt | 10800 |
| 209 | ctagtgggag | ctcattcaca | tatatatgag | ctagcctaca | tttccagcca | ttctgacttt | 10860 |
| 210 | attcctagtt | caggtgaact | gatatttgaa | cctggtgaga | gagaagctac | aatagcagta | 10920 |
| 211 | aatatccctg | atgataacagt | tccagaaaaa | gaagaatcct | tcaaagttca | acttaaaaaat | 10980 |
| 212 | cccaaaggag | gagcagagat | tggcattaat | gattctgtaa | caataacccat | tctgtctaat | 11040 |
| 213 | gatgatgcct | atggaattgt | tgcatttgct | cagaattcat | tatataagca | agtggaagaa | 11100 |
| 214 | atggagcaag | atagcctagt | aaccttgaa | gttgaaacgt | taaaaggaa | atatggccgt | 11160 |
| 215 | ataaccatag | catgggaagc | tgatggaagt | attagtgata | tatttccctac | ctcaggagtg | 11220 |
| 216 | attttatttta | ctgaaggcca | ggtactgtca | acaactcactc | taactattct | tgctgataat | 11280 |
| 217 | ataccagagt | tatcagaggt | tgtgattgta | acctcacc | gtatcaccac | agaaggggtt | 11340 |
| 218 | gaggactcat | acaaagggtg | tactattgat | caggacagaa | gcaagtctgt | tataacaact | 11400 |
| 219 | ttgcccgaatg | actcaccttt | tggcttggtg | ggctggcgtg | ctgcgtctgt | cttcattaga | 11460 |
| 220 | gtagcagagc | ctaaagaaaa | caccaccact | cttcagttac | aaatagctcg | agataaagga | 11520 |
| 221 | ctacttgggg | atattgccat | tcacttgaga | gctcaacc | atcttctact | gcatgtcgat | 11580 |
| 222 | aatcaagcta | ctgagaatga | agattatgta | ttgcaagaaa | caataataat | aatgaaagaa | 11640 |
| 223 | aacataaaa | agctcatgc | cgaagtctcc | attttgccc | atgaccttcc | tgaattggag | 11700 |
| 224 | gaaggattta | ttgtcactat | cactgaggtg | aacctggtga | actctgactt | ctctacagga | 11760 |
| 225 | cagccaagt | tgcggaggcc | cggaaatgga | atagctgaga | taatgataga | agaaaatgac | 11820 |
| 226 | gatcccagag | gaatttttat | gtttcatgtt | actagaggcg | ctggggaagt | tattactgcc | 11880 |
| 227 | tatgaggtgc | ctccaccctt | gaacgttctt | caagttcctg | tagtccggct | ggctggaagc | 11940 |
| 228 | tttggggcag | taaatgttta | ttggaaagca | tcaccagaca | gtgctggcct | ggaagacttt | 12000 |
| 229 | aaaccatctc | atgggattct | tgaatttgca | gataaacagg | ttactgcaat | gatagaaatc | 12060 |
| 230 | accataattg | atgatgctga | atttgaattg | acagagacgt | tcaatatttc | cttgatcagt | 12120 |
| 231 | gttgctggag | gtggcagact | tggatgat | gttggtgtaa | ctgttggtat | tccacaaaat | 12180 |
| 232 | gattctccat | ttggagtatt | tggatttgaa | gaaaagactg | taatgattga | tgaatccctt | 12240 |
| 233 | tcatccgatg | acctgattc | atatgtgaca | ttgacggttg | tccggtcccc | aggaggaaaa | 12300 |
| 234 | ggaaccgtcc | gacttgagt | gaccatagat | gagaaggcta | aacataacct | tagtcctttg | 12360 |
| 235 | aatgggaccc | ttcattttga | tgagactgag | tcccagaaga | ccattgtgtt | gcacacactt | 12420 |
| 236 | caagacacag | tggtggagga | ggacaggcgt | ttcaccattc | agctgatatc | aattgatgag | 12480 |
| 237 | gtagaaatat | ctccagtaaa | aggtagtgca | tcaataatta | ttcggggtga | taagcgagca | 12540 |
| 238 | tcaggagaag | ttgggatagc | tccgtcatct | aggcacatcc | tcattgggga | acctcagca | 12600 |
| 239 | aaatataatg | gtaccgctat | tatcagcctt | gttcgaggcc | cagggatttt | gggggaggtc | 12660 |

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/568,471

DATE: 02/24/2006
TIME: 16:50:49

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\02242006\J568471.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; N Pos. 435,652

Seq#:16; N Pos. 1,3,5,416,424,463,474

VERIFICATION SUMMARY

DATE: 02/24/2006

PATENT APPLICATION: US/10/568,471

TIME: 16:50:49

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\02242006\J568471.raw

L:16 M:283 W: Missing Blank Line separator, <120> field identifier
L:17 M:283 W: Missing Blank Line separator, <130> field identifier
L:18 M:270 C: Current Application Number differs, Replaced Current Application No
L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:22 M:283 W: Missing Blank Line separator, <160> field identifier
L:24 M:283 W: Missing Blank Line separator, <210> field identifier
L:28 M:283 W: Missing Blank Line separator, <400> field identifier
L:356 M:283 W: Missing Blank Line separator, <400> field identifier
L:394 M:283 W: Missing Blank Line separator, <400> field identifier
L:415 M:283 W: Missing Blank Line separator, <400> field identifier
L:428 M:283 W: Missing Blank Line separator, <220> field identifier
L:432 M:283 W: Missing Blank Line separator, <220> field identifier
L:436 M:283 W: Missing Blank Line separator, <400> field identifier
L:444 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:420
L:447 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:600
L:453 M:283 W: Missing Blank Line separator, <400> field identifier
L:465 M:283 W: Missing Blank Line separator, <400> field identifier
L:498 M:283 W: Missing Blank Line separator, <400> field identifier
L:563 M:283 W: Missing Blank Line separator, <400> field identifier
L:612 M:283 W: Missing Blank Line separator, <400> field identifier
L:627 M:283 W: Missing Blank Line separator, <400> field identifier
L:661 M:283 W: Missing Blank Line separator, <400> field identifier
L:689 M:283 W: Missing Blank Line separator, <400> field identifier
L:704 M:283 W: Missing Blank Line separator, <400> field identifier
L:740 M:283 W: Missing Blank Line separator, <400> field identifier
L:802 M:283 W: Missing Blank Line separator, <220> field identifier
L:806 M:283 W: Missing Blank Line separator, <220> field identifier
L:810 M:283 W: Missing Blank Line separator, <220> field identifier
L:814 M:283 W: Missing Blank Line separator, <220> field identifier
L:818 M:283 W: Missing Blank Line separator, <220> field identifier
L:822 M:283 W: Missing Blank Line separator, <220> field identifier
L:826 M:283 W: Missing Blank Line separator, <220> field identifier
L:830 M:283 W: Missing Blank Line separator, <400> field identifier
L:831 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:837 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:360
L:838 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:420
L:843 M:283 W: Missing Blank Line separator, <400> field identifier
L:1022 M:283 W: Missing Blank Line separator, <400> field identifier
L:1060 M:283 W: Missing Blank Line separator, <400> field identifier
L:1093 M:283 W: Missing Blank Line separator, <400> field identifier
L:1144 M:283 W: Missing Blank Line separator, <400> field identifier
L:1201 M:283 W: Missing Blank Line separator, <400> field identifier
L:1235 M:283 W: Missing Blank Line separator, <400> field identifier
L:1250 M:283 W: Missing Blank Line separator, <400> field identifier
L:1303 M:283 W: Missing Blank Line separator, <400> field identifier
L:1372 M:283 W: Missing Blank Line separator, <400> field identifier
L:1456 M:283 W: Missing Blank Line separator, <400> field identifier
L:1492 M:283 W: Missing Blank Line separator, <400> field identifier

VERIFICATION SUMMARY

DATE: 02/24/2006

PATENT APPLICATION: US/10/568,471

TIME: 16:50:49

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\02242006\J568471.raw

L:5292 M:283 W: Missing Blank Line separator, <400> field identifier
L:5357 M:283 W: Missing Blank Line separator, <400> field identifier
L:5420 M:283 W: Missing Blank Line separator, <400> field identifier
L:5535 M:283 W: Missing Blank Line separator, <400> field identifier
L:5572 M:283 W: Missing Blank Line separator, <400> field identifier
L:5605 M:283 W: Missing Blank Line separator, <400> field identifier
L:5660 M:283 W: Missing Blank Line separator, <400> field identifier
L:5779 M:283 W: Missing Blank Line separator, <400> field identifier
L:5908 M:283 W: Missing Blank Line separator, <400> field identifier
L:6037 M:283 W: Missing Blank Line separator, <400> field identifier
L:6098 M:283 W: Missing Blank Line separator, <400> field identifier
L:6161 M:283 W: Missing Blank Line separator, <400> field identifier
L:6266 M:283 W: Missing Blank Line separator, <400> field identifier
L:6301 M:283 W: Missing Blank Line separator, <400> field identifier
L:6392 M:283 W: Missing Blank Line separator, <400> field identifier
L:6493 M:283 W: Missing Blank Line separator, <400> field identifier
L:6586 M:283 W: Missing Blank Line separator, <400> field identifier
L:6605 M:283 W: Missing Blank Line separator, <400> field identifier
L:6664 M:283 W: Missing Blank Line separator, <400> field identifier
L:6723 M:283 W: Missing Blank Line separator, <400> field identifier
L:6750 M:283 W: Missing Blank Line separator, <400> field identifier
L:6867 M:283 W: Missing Blank Line separator, <400> field identifier
L:6910 M:283 W: Missing Blank Line separator, <400> field identifier
L:7037 M:283 W: Missing Blank Line separator, <400> field identifier
L:7084 M:283 W: Missing Blank Line separator, <400> field identifier
L:7213 M:283 W: Missing Blank Line separator, <400> field identifier
L:7256 M:283 W: Missing Blank Line separator, <400> field identifier
L:7469 M:283 W: Missing Blank Line separator, <400> field identifier
L:7546 M:283 W: Missing Blank Line separator, <400> field identifier
L:7569 M:283 W: Missing Blank Line separator, <400> field identifier
L:7606 M:283 W: Missing Blank Line separator, <400> field identifier
L:7631 M:283 W: Missing Blank Line separator, <400> field identifier
L:7712 M:283 W: Missing Blank Line separator, <400> field identifier
L:7751 M:283 W: Missing Blank Line separator, <400> field identifier
L:7860 M:283 W: Missing Blank Line separator, <400> field identifier
L:7981 M:283 W: Missing Blank Line separator, <400> field identifier
L:8014 M:283 W: Missing Blank Line separator, <400> field identifier
L:8047 M:283 W: Missing Blank Line separator, <400> field identifier
L:8096 M:283 W: Missing Blank Line separator, <400> field identifier
L:8171 M:283 W: Missing Blank Line separator, <400> field identifier
L:8190 M:283 W: Missing Blank Line separator, <400> field identifier
L:8287 M:283 W: Missing Blank Line separator, <400> field identifier
L:8334 M:283 W: Missing Blank Line separator, <400> field identifier
L:8361 M:283 W: Missing Blank Line separator, <400> field identifier
L:8374 M:283 W: Missing Blank Line separator, <400> field identifier
L:8427 M:283 W: Missing Blank Line separator, <400> field identifier
L:8560 M:283 W: Missing Blank Line separator, <400> field identifier
L:8566 M:283 W: Missing Blank Line separator, <400> field identifier
L:8572 M:283 W: Missing Blank Line separator, <400> field identifier